

Tennessee Comprehensive Assessment Program
Item Sampler

Grade 7



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Introduction

What is the TCAP Achievement Test?

The TCAP Achievement Test is a multiple-choice test designed to measure student achievement in certain skills in five subject areas: Reading, Language Arts, Mathematics, Science, and Social Studies. The sample questions in this On-Line Item Sampler are representative of the item types and item formats that will be used in the actual test, including those questions with art and without art.

What are the questions testing?

Questions are written to test student performance in State and national content areas. The State Content Standards and Performance Indicators were developed by the Tennessee Department of Education.

These Standards and Performance Indicators are listed on the State Department of Education Web site at <http://www.state.tn.us/education/ci/cistandards.htm>

Who will be tested?

All students in grades three through eight will be tested.

How long will the tests take?

The length of the tests will vary, depending on the grade level. The time limits are generous and allow most students time to finish. Extended time limits apply for students using accommodations.

How do I use the sample questions?

These questions provide information for students, parents, and teachers about the TCAP Achievement Test. The questions in the On-Line Item Sampler are representative of most of the question types that will be on the TCAP Achievement Test.

These questions can be used as a classroom learning session or as an individual, short practice test to prepare students for the actual test. Item types with and without art are presented to better familiarize students with the actual test format.

An answer key for the sample questions is provided at the end of this On-Line Item Sampler.

How will the tests be scored?

The test answers will be machine scored. Results from the test provide information about how well students performed on the content being tested.

May calculators be used?

A calculator may be used for test items that do not measure the academic skill of computation, e.g., applied concepts and algebraic problems. Calculators may be used on most TCAP Achievement Mathematics Subtests. Calculators **may not** be used on any part of the K–2 test.

Which test accommodations may be used?

The Achievement Test may be administered using various procedures (or accommodations) that are used during the student’s daily educational program. Certain conditions must be met for students to be eligible for Special and English Language Learner Accommodations.

What are some tips for preparing students for the test?

Remind students to

Relax: It is normal to be somewhat anxious before the test. Remember that the score is only one of a number of measures of performance.

Listen: Listen to and read the test directions carefully.

Plan Use of Time: First, answer all the questions you are sure about. Do not spend too much time on any one question. If a question seems to take too long, skip it and return to it later if you have extra time.

Pause and Think: If you are not sure how to answer a question, carefully read it again. Rule out answer choices that you know are incorrect and then choose from those that remain.

Reading and Language Arts



Directions

Read the passage about birding. Then answer Numbers 1 through 4.

Bird Watching

Many people in the United States and throughout the world enjoy bird watching or “birding,” one of the fastest-growing outdoor activities. In fact, a survey by the U.S. Fish and Wildlife Service reported that over 50 million Americans watch birds. There are many reasons birding has become such a popular pastime, but one of the main reasons is how easy it is to start. Birding is an activity that almost anyone can do regardless of age, physical size and strength, or previous experience; also, it can be done alone or as part of a group of other birding enthusiasts. A city park, a field, a forest, or even a friend’s back yard are all good places to start. This makes the fun of bird watching open to just about everyone.

The basics of bird watching are simple. By definition, bird watching is “the observation of birds in their natural habitat.” All you need to start is the time and place to look for birds and a small notebook to record notes about the birds you see. Any pair of binoculars you can use will also help. Here are a few tips to help you get the most out of joining “the birding boom”:

1. When you first spot a bird, try to identify it. Take notes about the bird’s size, appearance, and the sounds it makes; later, confirm your sighting with a field guide or other bird watching reference.
2. Record the date and time of each bird you see. That way you’ll have a record or log of all your sightings to compare with other birding pals.
3. Try birding in a variety of habitats. If you only look in the same place each time you go birding, it will not take long before you will want to spot new and different birds.
4. Try looking for one or two new birds to record any time you travel to a new area.
5. Join a bird watching club or take other birders with you to new sighting areas. You’re likely to learn a lot from others and have a lot of fun in the process.

If you enjoy bird watching, you’re certainly not alone. It’s a fun way to get some exercise and enjoy the outdoors. It’s also an activity with a built-in bonus: birders sometimes help develop scientific knowledge just by practicing their hobby and participating in the birding boom. Who knows? Some day, an ornithologist might even thank you for your own birding observations!

Reporting Category: 1 Content

Performance Indicator: 7.1.spi.17 Identify the author's purpose for writing and/or the reader's purpose for reading.

1 This author most likely wrote this passage to

- A** entertain readers with bird stories
- B** inform readers about bird watching
- C** describe various bird habitats for readers
- D** convince readers to become bird scientists

Reporting Category: 2 Meaning

Performance Indicator: 7.1.spi.16 Draw inferences from selected passages.

2 Based on information presented in the passage, the reader can infer that

- F** finding a place to observe birds can be very difficult
- G** bird watching requires a lot of expensive equipment
- H** finding people who are interested in birding is fairly easy
- J** bird watching is more enjoyable if you have some scientific knowledge

Reporting Category: 3 Vocabulary

Performance Indicator: 7.1.spi.3 Replace unknown words in context with appropriate synonyms or antonyms.

3 Read the sentence.

Birding is an activity that almost anyone can do regardless of age, physical size and strength, or previous experience; also, it can be done alone or as part of a group of other birding enthusiasts.

The word *enthusiasts* could best be replaced by

- A** fans
- B** rivals
- C** officials
- D** guardians

Reporting Category: 4 Writing/Organization

Performance Indicator: 7.2.spi.13 Select the most appropriate title for a passage.

4 What would be the most appropriate title for the passage?

- F** Endangered Birds
- G** The Birding Boom
- H** Birding Club Basics
- J** The Backyard Birdwatcher

Reporting Category: 5 Writing/Process

Performance Indicator: 7.3.spi.8 Select the most appropriate method to correct a run-on sentence (i.e., conjunctions, semicolons, and periods to join or separate elements) within context.

5 What is the best way to correct the run-on sentence below?

I can go to the game with you and Mike first I have to finish my homework.

- A** I can go to the game with you and Mike, and first I have to finish my homework.
- B** I can go to the game with you and Mike, but first I have to finish my homework.
- C** Finishing my homework, I can then go to the game with you and Mike.
- D** My homework being finished with you and Mike, now I can go to the game.

Reporting Category: 6 Grammar/Conventions

Performance Indicator: 7.3.spi.7 Identify the correct use of prepositions and prepositional phrases within context.

6 Which sentence uses a prepositional phrase correctly?

- F** In response to the newspaper, the movie starts at 7:00 P.M.
- G** On behalf of the storm, the field trip has officially been postponed.
- H** Along with the past two years, our soccer team has gotten better and better.
- J** In addition to our backpacks and sleeping bags, we will also need food and water.

7 Read the sentence.

Some birds adapt to seasonel weather changes, while others, known as migratory birds, journey long distances to avoid bad weather.

Which word is spelled incorrectly?

- A** adapt
- B** seasonel
- C** journey
- D** distances

Mathematics



Reporting Category: 1 Number and Operations

Performance Indicator: 7.1.spi.1 Identify prime and composite numbers up to 50.

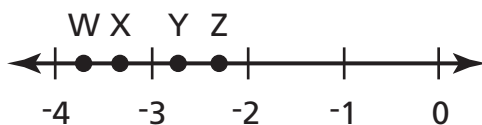
1 Which is a composite number?

- A** 11
- B** 21
- C** 31
- D** 41

Reporting Category: 1 Number and Operations

Performance Indicator: 7.1.spi.11 Connect rational numbers to locations on the number line.

2 Which point represents $-3\frac{1}{3}$?



- F** Point W
- G** Point X
- H** Point Y
- J** Point Z

Reporting Category:

2 Algebraic Thinking

Performance Indicator:

7.2.spi.6 Evaluate algebraic expressions for a given value of up to two variables.

3

Given: $w = 2$

Simplify: $3w \times (5 - w)$

A 15

B 18

C 28

D 96

Reporting Category:

2 Algebraic Thinking

Performance Indicator:

7.5.spi.8 Use proportional thinking to make conjectures about results of experiments and simulations.

4



Use the inch side of your ruler to help solve this problem.

Look at the map of a zoo.

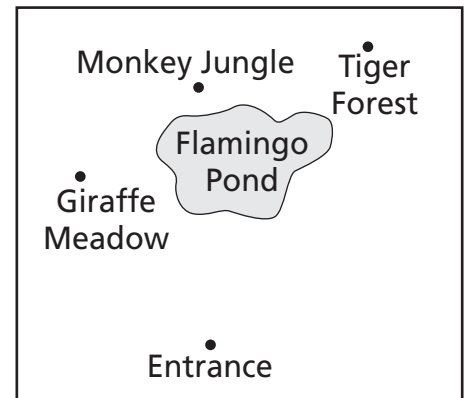
How far is the Tiger Forest from the entrance?

F 50 yards

G 150 yards

H 250 yards

J 350 yards



Scale: $\frac{1}{4}$ inch = 50 yards

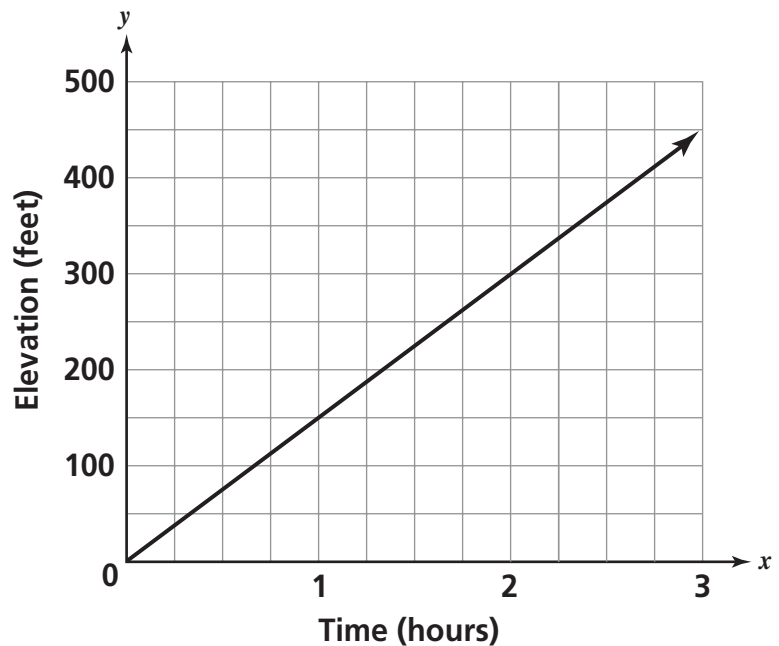
Reporting Category: 3 Graphs and Graphing

Performance Indicator: 7.2.spi.11 Interpret graphs which represent rates of change.

- 5** Robyn was rock climbing. The graph shows her elevation as a function of time.

At what rate did Robyn's elevation change?

- A** 100 feet per hour
- B** 150 feet per hour
- C** 300 feet per hour
- D** 450 feet per hour



Reporting Category: 4 Real World Problem Solving

Performance Indicator: 7.1.spi.8 Solve one- and two-step real-world problems involving whole numbers, fractions, and decimals.

- 6** Students pay \$35 to take an art class at City College. If 86 students are taking the class, how much money will City College collect?

- F** \$121
- G** \$490
- H** \$2,580
- J** \$3,010

Reporting Category: 4 Real World Problem Solving

Performance Indicator: 7.2.spi.3 Extend rate charts to solve real-world problems.

7 The sign shows costs for boat rentals.

Karla rents a boat for 5 hours. How much does it cost?

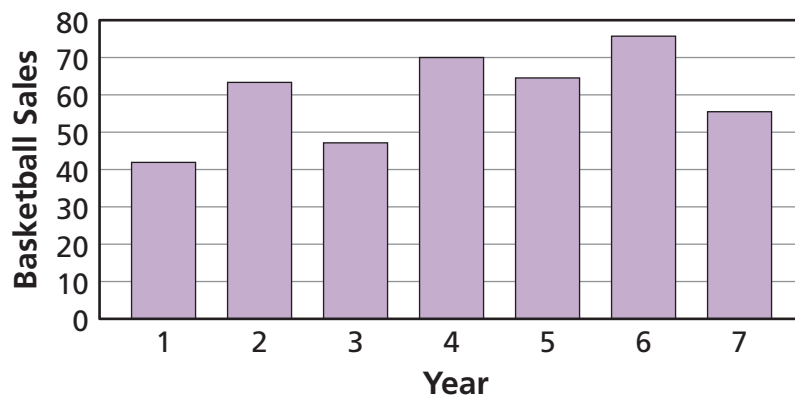
- A** \$11.00
- B** \$12.50
- C** \$14.50
- D** \$17.50

BOAT RENTAL COSTS	
Time	Cost
1 hour	\$6.50
2 hours	\$8.00
3 hours	\$9.50

Reporting Category: 5 Data Analysis and Probability

Performance Indicator: 7.5.spi.1 Interpret bar and line graphs to answer questions and solve real-world problems.

8 Maria owns a sports shop. The bar graph shows basketball sales by year.



How many years did Maria sell less than 40 basketballs?

- F** 0
- G** 1
- H** 2
- J** 3

Reporting Category: 5 Data Analysis and Probability

Performance Indicator: 7.5.spi.9 Connect the symbolic representation of a probability to an experiment.

9 There are 6 red flowers, 2 yellow flowers, and 4 white flowers in a garden. Randomly, a bee lands on a flower. What is the probability the flower is white?

A $\frac{1}{12}$

B $\frac{1}{4}$

C $\frac{1}{3}$

D $\frac{1}{2}$

Reporting Category: 6 Measurement

Performance Indicator: 7.4.spi.4 Select units of appropriate size and type to measure angles, perimeter, area, surface area, and volume.

10 What units should Ingrid use to find the surface area of a shoe box?

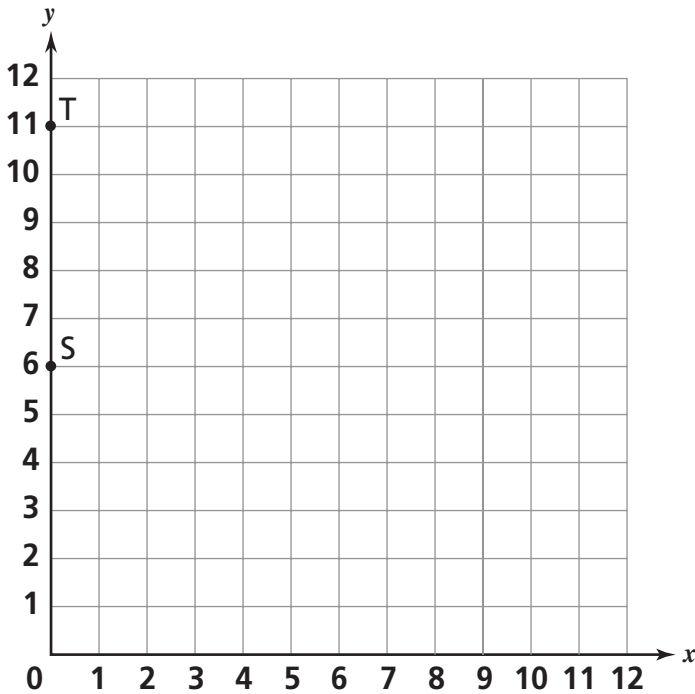
F feet

G milliliters

H cubic feet

J square inches

11 What is the distance between Point S and Point T?

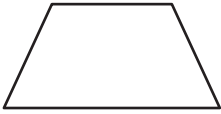


- A** 4 units
- B** 5 units
- C** 6 units
- D** 11 units

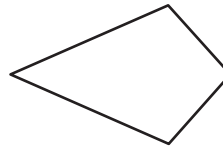
Reporting Category: 7 Geometry

Performance Indicator: 7.3.spi.4 Classify polygons by properties.

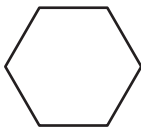
12 Which shape has exactly two pairs of parallel sides?



F



H



G



J

Reporting Category: 7 Geometry

Performance Indicator: 7.3.spi.4 Classify polygons by properties.

13 Which describes any parallelogram?

- A** 2 right angles
- B** 5 straight sides
- C** 4 congruent sides
- D** 2 pairs of parallel sides

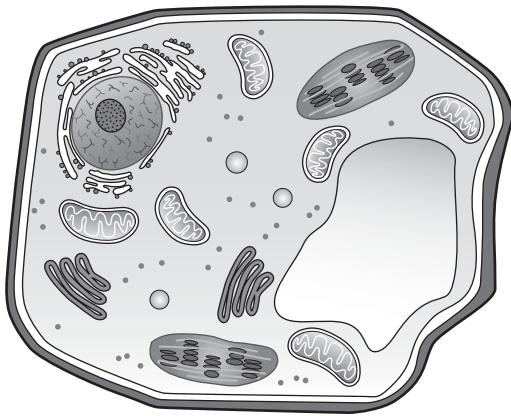
Science



Reporting Category: 1 Cell Structure and Function

Performance Indicator: 7.1.spi.3 Distinguish between plant and animal cells.

1 A cell is shown below.



Which of these statements best describes this cell?

- A** It is a plant cell because it has chloroplasts.
- B** It is an animal cell because it has mitochondria.
- C** It is a plant cell because it does not have ribosomes.
- D** It is an animal cell because it does not have a cell wall.

Reporting Category: 1 Cell Structure and Function

Performance Indicator: 7.1.spi.5 Determine the relationships among cells, tissues, organs, and systems given a diagram, and identify the function of organ systems.

2 Which of these shows the correct relationship between tissues, organs, cells, and organ systems?

F cells → tissues → organs → organ system

G tissues → cells → organs → organ system

H organs → organ system → tissues → cells

J organs → tissues → cells → organ system

Reporting Category: 2 Food Production and Energy for Life

Performance Indicator: 7.3.spi.6 Identify the reactants and products of photosynthesis and respiration.

3 Part of the process of cellular respiration is shown below.

sugar + Substance 1 → Substance 2 + water + energy

What is Substance 2 in the process of cellular respiration?

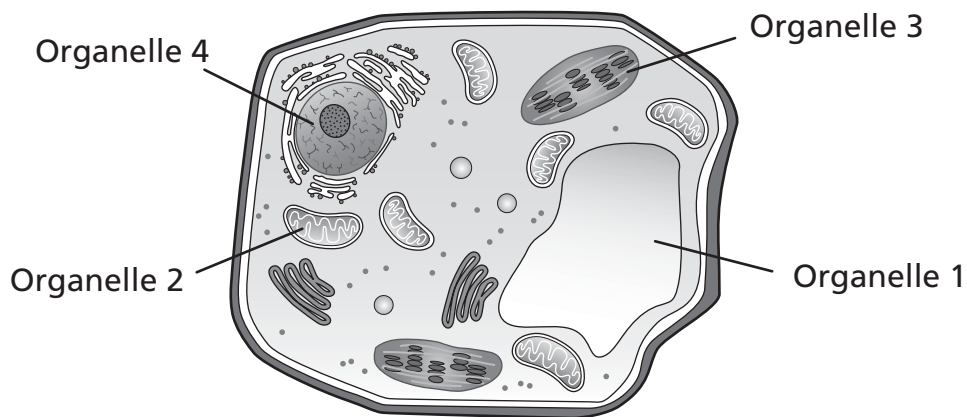
A water

B oxygen

C carbon dioxide

D light energy

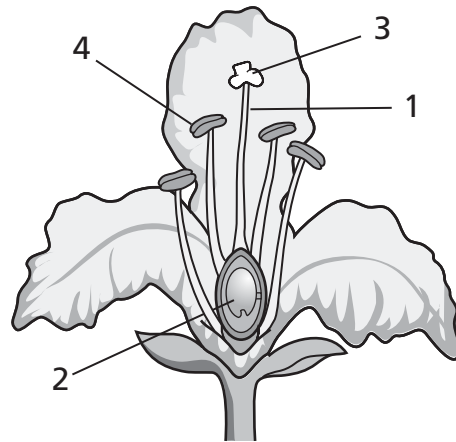
4 A cell is shown below.



In which of these organelles does cellular respiration occur?

- F** Organelle 1
- G** Organelle 2
- H** Organelle 3
- J** Organelle 4

- 5** Some flower structures are labeled in the diagram below.



What is the function of Structure 4 ?

- A** to fertilize eggs
- B** to produce pollen
- C** to produce eggs
- D** to receive pollen

Reporting Category: 3 Heredity and Reproduction

Performance Indicator: 7.4.spi.3 Recognize advantages and disadvantages of sexual and asexual reproduction.

- 6** Some animals use the process of asexual reproduction to produce offspring.

Which of these can be a disadvantage of producing offspring through asexual reproduction?

- F** Animals reproducing asexually need to find a mate to produce offspring.
- G** Asexual reproduction produces offspring that are genetically identical to their parents.
- H** The population size of animals that reproduce asexually can increase rapidly.
- J** Asexual reproduction produces offspring that are genetically different from their parents.

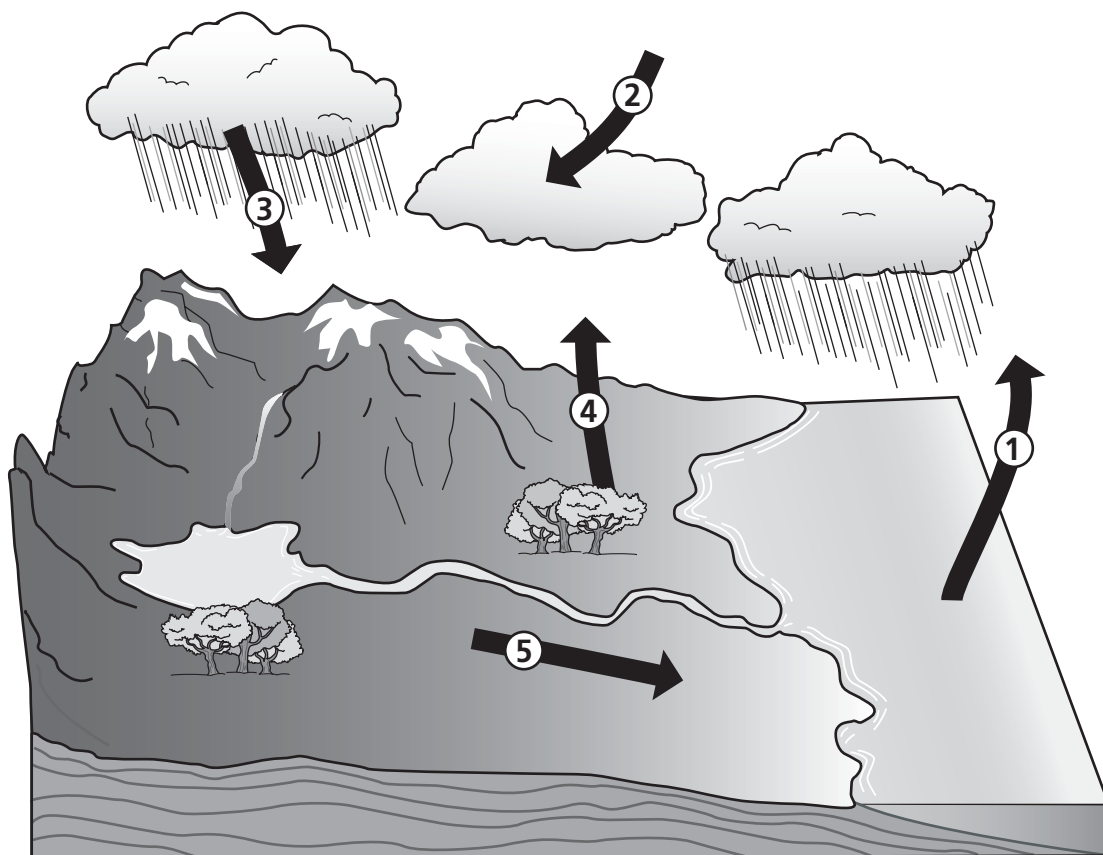
Reporting Category: 4 Atmospheric Cycles

Performance Indicator: 7.8.spi.1 Determine how temperature affects evaporation and condensation in the atmosphere.

- 7** An increase in evaporation of water from a puddle is a result of

- A** an increase in temperature
- B** a decrease in temperature
- C** an increase in humidity
- D** a decrease in surface area

8 A water cycle diagram is shown below.



What does Arrow 5 represent?

- F** condensation
- G** evaporation
- H** run-off
- J** precipitation

9 Which of these is a compound?

- A** Na
- B** H₂
- C** NaCl
- D** Cl₂

Social Studies



Reporting Category: 1 Economics

Performance Indicator: 7.2.spi.1 Recognize basic economic concepts (i.e., imports, exports, barter system, tariffs, closed and emerging markets, supply and demand, inflation, recession, depression).

1 Which economic term means there is a rise in the general level of prices of most goods and services?

- A** barter
- B** depression
- C** inflation
- D** supply

Reporting Category: 1 Economics

Performance Indicator: 7.2.spi.4 Interpret economic issues as expressed with maps, tables, diagrams, and charts.

**Local Demand for
Compact Digital Discs (CDs)**

Price of CD	Quantity Demanded
\$25	0
\$20	1
\$15	3
\$10	6
\$5	10

2 John wants to open a store that sells CDs in his hometown. The chart above tells him that people in the area

- F** dislike the music on the expensive CDs
- G** have very little money to spend on CDs
- H** will buy more inexpensive CDs than expensive ones
- J** will buy most of their CDs at other stores in the area

Reporting Category: 2 Government and Civics

Performance Indicator: 7.4.spi.1 Define the different types of governments (i.e., democracy, autocracy, oligarchy, monarchy, dictatorship).

3 Which of these is true about a country with a dictatorship?

- A** People are guaranteed equal rights.
- B** People have control of the government.
- C** The government leader must obey the laws.
- D** The government leader has absolute power.

Reporting Category: 2 Government and Civics

Performance Indicator: 7.4.spi.4 Identify political leaders from selected contemporary settings (i.e., United States, India, Canada, Mexico, Great Britain, Russia, China).

Mexico
India
Russia

4 In all the countries in the box, the head of government is a

- F** chairman
- G** king or queen
- H** president
- J** prime minister

Reporting Category: 3 Human Geography

Performance Indicator: 7.3.spi.13 Recognize the definitions of modifications on the physical environment (i.e., global warming, deforestation, desertification, urbanization).

5 Which of these is most responsible for global warming?

- A** soil erosion
- B** nuclear waste
- C** water pollution
- D** automobile exhaust

Reporting Category: 3 Human Geography

Performance Indicator: 7.3.spi.14 Distinguish between types of maps (i.e., political, physical, climatic, land-use resource, contour, elevation, topographic).

This kind of map shows the surface features of the land, such as roads, settlements, marshes, and lowlands, in great detail. The map is large in scale, usually in the range of 1 inch to 1 mile. It shows elevations by contour lines.





6 What kind of map is it?

- F** historical
- G** topographical
- H** physical
- J** political

Reporting Category: 4 Physical Geography

Performance Indicator: 7.3.spi.1 Identify and use the basic elements of maps and mapping.

7 What symbol usually signifies a capital city on a map?

- A** 
- B** 
- C** 
- D** 

Reporting Category: 4 Physical Geography

Performance Indicator: 7.3.spi.9 Identify the location of Earth's major landforms and bodies of water (i.e., Rockies, Andes, Himalayas, Alps, Urals, Sahara Desert, Nile River Valley, Great Plains, Mississippi River, Amazon River, Thames River, Seine River, Rhine River, Danube River, Tigris River, Euphrates River, Ganges River, Volga River, Yellow River).



8 Which river is located nearest Number 7 ?

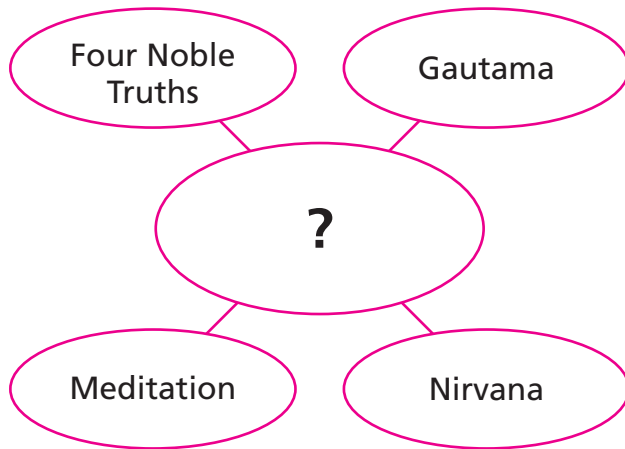
- F** Amazon
- G** Ganges
- H** Rhine
- J** Volga

Reporting Category:

5 History

Performance Indicator:

7.1.spi.3 Compare and contrast the tenets of the five major world religions (i.e., Christianity, Buddhism, Islam, Hinduism, and Judaism).



9 Which religion best fits in the diagram?

- A** Buddhism
- B** Christianity
- C** Islam
- D** Judaism

Reporting Category: 5 History

Performance Indicator: 7.5.spi.1 Identify the causes and consequences of urbanization (i.e., industrial development, education, health care, cultural opportunities, poverty, overcrowding, disease).

Changes on a Street in New York City

Those who remember the Broadway of twenty years ago can hardly walk the street now without [constant] wonder and surprise. . . . Twenty years ago it was a street of three-story brick houses. Now it is a highway of stone, and iron, and marble buildings.

Of course in all these changes the city has lost much of its old town character and become every year more and more of a metropolis. . . . The customs of smaller towns . . . are gradually going.

— an excerpt from an article by George W. Curtis in
Harper's New Monthly Magazine, February 1862

10 All the changes described in the excerpt caused New York City over time to become

- F** safer
- G** less polluted
- H** more crowded
- J** less racially diverse

Answer Key

Reading and Language Arts

1	B
2	H
3	A
4	G
5	B
6	J
7	B

Mathematics

1	B
2	G
3	B
4	J
5	B
6	J
7	B
8	F
9	C
10	J
11	B
12	J
13	D

Science

1	A
2	F
3	C
4	G
5	B
6	G
7	A
8	H
9	C

Social Studies

1	C
2	H
3	D
4	H
5	D
6	G
7	D
8	G
9	A
10	H